TRAVAUX DU MUSÉUM NATIONAL D'HISTOIRE NATURELLE «GRIGORE ANTIPA»
THE JOURNAL OF "GRIGORE ANTIPA" NATIONAL MUSEUM OF NATURAL HISTORY

Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa" 65 (2): 157–161 (2022)
doi: 10.3897/travaux.65.e96720

FAUNISTIC NOTE

Procas (Coleoptera: Curculionidae) – a new genus for the Romanian entomofauna

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Received 25 October 2022 | Accepted 6 December 2022 | Published 31 December 2022

Citation: Olariu T-S, Pintilioaie A-M (2022) *Procas* (Coleoptera: Curculionidae) – a new genus for the Romanian entomofauna. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa" 65(2): 157–161. https://doi.org/10.3897/travaux.63.e96720

Abstract

Procas picipes steveni Krynicki, 1832 is recorded for the first time in Romania. Data on ecology and its distribution in Europe are discussed.

Keywords

biodiversity, Curculionoidea, Insecta, species distribution, weevil.

Procas Stephens, 1831 is a small and peculiar genus belonging to the Erirhini tribe of the Curculionidae weevil family, consisting of six highly similar species (Thompson 2006). This genus is differentiated by other Erirhini genera by its compact shape, black, dull color, evenly distributed white setae forming condensed spots and bands on elytra, a coarsely punctured rostrum and middle and hind tibiae with a circlet of long, yellowish hairs in the apical third; the intraspecific variation in size and the disposition of setae is large. It is worth mentioning here that the taxonomic placement of the Erirhini tribe is a subject of controversy and is not yet completely solved. While Thompson (2006) and Caldara (2011) treat it as a separate family (Erirhinidae) and Legalov (2020) considers it a distinct subfamily within Curculionidae, the Cooperative Catalogue of Palaearctic Coleoptera Curculionoidea (CCPCC) (Alonso-Zarazaga et. al 2017) have placed this tribe within the Brachycerinae subfamily of the Curculionidae

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family. This placement is further adopted in the next edition of the CCPCC, now in press. Thus, while the question regarding the taxonomic status of the Erirhini tribe remains open, we've chosen to adopt in this paper the CCPCC classification which regards Erirhini as a tribe belonging to the Brachycerinae weevil subfamily.

Procas species are widely distributed throughout the Holarctic region. Despite them having fully developed wings and wide distribution areas, it is unknown for certain whether or not these beetles fly (Thompson 2006). Like other erirhinids, most of these beetles prefer humid habitats, species occurring in steppic areas sometimes aestivating in mud during summer (Thompson 2006). Being active in humid and cool conditions, often at night, results in a low detectability, thus the records for these beetles are scarce and localized, with numerous gaps being present in their distribution.

The species *Procas picipes* Marsham, 1802 consists of 3 allopatric subspecies: the nominate subspecies, occuring in Western Europe, *P. p. levantinus* Thompson, 2006, found in Middle East, and *P. p. steveni* Krynicki, 1832, spread in Eastern Europe, Caucasus and Northeastern Turkey. The presence of the last subspecies was not unlikely in Romania, due to it being present in Ukraine, Moldova and Bulgaria (Thompson 2006, Alonso-Zarazaga et. al 2017, Wanat and Mokrzycki 2018), but, until now, this taxon was never recorded in the current area of this country, though in the area that this taxon was found, extensive research on Curculionoidea were conducted in the last years (Kocs et al. 2021).

It is known that this species occurs in open, steppic areas and in meadows (Thompson 2006, Yunakov et al. 2018,), but, other than that, its ecology and life history are not known.

We should note here that Yunakov et al. (2018) consider *P. picipes steveni* and *P. armillatus* Fabricius, 1801 to be conspecific. However, according to the most recent revision of this genus (Thompson 2006), further adopted by the Cooperative Catalogue of Palaearctic Coleoptera Curculionoidea (Alonso-Zarazaga et al. 2017), they are distinct species. Until further research, in this paper we consider the two taxons to be different.

Material examined: Romania: 1 ♂; Constanța county, Agigea, Marine Dunes of Agigea; 44.0869°N/28.6416°E; 10 m alt.; 15 Nov. 2021; Pintilioaie Alexandru-Mihai leg. The specimen (Figs 1, 2) was collected by hand from a wall and it is housed in the personal collection of the second author (Iași, Romania). The pictures of the mounted beetle were done using a Canon EOS 6D with a Canon MP-E 65 mm f/2.8 equipped on it. The resulted pictures were stacked using Zerene Stacker software 1.04.

The habitat where we found the beetle is characterized by marine sand dunes covered almost entirely with steppic herbaceous vegetation. Some trees and shrubs are also present in the area (Fig. 3). It is interesting to note that the specimen was found on a white wall, at around 50 centimeters above the ground. It is unclear whether the beetle crawled his way up the wall or has flown there.

Figure 1. Habitus of *Procas picipes steveni* Krynicki, 1832, collected in Romania, dorsal view.

Figure 2. Habitus of *Procas picipes steveni* Krynicki, 1832, collected in Romania, lateral view.

This new record also provides new phenology data; according to Thompson (2006) and Yunakov et al. (2018), *Procas picipes steveni* is active between February and June; however, our data expands the knowledges of the phenological range of this beetle, showing that it can also be active in autumn.

From a distribution point of view, the record is not that surprising, given the fact that this species is known to occur in Odessa, on the Ukrainian Black Sea Coast (Thompson 2006). Thus, it is very likely that *P. p. steveni* occurs in other localities in Romanian Dobruja, at least on the Black Sea Coast. Furthermore, while surveying literature data (Thompson 2006; Yunakov et al. 2018), we came across an interesting

Figure 3. Habitat of *Procas picipes steveni* in Romania, October 2022.

record from Kamenets-Podolskiy, an Ukrainian city which lies not too far from the northern Romanian border. Thus, the presence of *P. p. steveni* is not unlikely in Romanian Moldova, in the forest steppe areas. However, further fieldwork in the suitable habitats is needed in order to find new populations, to confirm these suppositions and to contribute to the knowledge of this species' ecology.

Acknowledgments

The authors are in debt to Cosmin Ovidiu Manci who helped with the pictures of the specimen and to Aleksei Kovalev who helped with the identification of the specimen. This paper is based on work from the Project: The implementation of conservation measures on the Natura 2000 Site and the natural protected area of national interest Marine Dunes of Agigea ROSCI0073 / code 2.366, code MySMIS 152393, supported by European Regional Development Fund, through Large Infrastructure Operational Programme 2014–2020.

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